

GOTT, H.H.; MASTERS, E.F.O.; SHIPP, G.C.; KOCZOGH, Akosne [translator]

Reactors of atomic power plants. Atom taj 2 no.1:67-88 Ja '59.

1ST AND 2ND ORDER										3RD AND 4TH ORDER									
<p>GOTT V.S. C A</p> <p>Method for obtaining strong ionic currents. V. S. Gott, M. I. Korzunskii and P. P. Lange. <i>Bull. Acad. Sci. U. R. S. S., Ser. phys.</i> 4, 389-91 (in English, 392) (1960). See C. A. 34, 7724f. C. L. R.</p>																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>GROUPS</p>										<p>GROUPS</p>									
<p>GROUPS</p>										<p>GROUPS</p>									

GOTT, V.S., dots.

Powerful weapon in the struggle against revisionism. Nauka i
zhyttia 8 no.10:5-8 '58. (MIRA 13:4)
(Communist revisionism)

GOTT, V.S. land.fiz.-mat.nauk, dots.

Matter and motion. Nauka i zhyttia 9 no.4:15-17 Ap '59.
(MIRA 12:7);

(Matter) (Motion)

PYASKOVSKIY, Boleslav Vital'yevich [Piaskova's'kyi, B.V.]; GOTT, V.S. [Hott. V.S.], kand.fiziko-matem.nauk, glavnyy red.

[Struggle of materialism against idealism in present-day mathematics] Borot'ba materializmu z idealizmom v suchasni matematytsi. Kyiv, 1960. p. 39. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi RSR. Ser.5, no.1).
(MIRA 13:6)

(Mathematics--Philosophy)

^{Yu. V.}
GOTT Yu. ~~X~~. and IOFFE, N. S. and ^ETOLKOVSKY, V. G.

"Some new results on the confinement of magnetic traps"

Report presented at the Conference on Plasma Physics and Controlled
Nuclear Fusion Salzburg, Austria, 4-8 Sep 61

27168

S/057/61/031/009/008/019

B104/B102

24.6710

AUTHORS: Gott, Yu. V., and Tel'kovskiy, V. G.

TITLE: Determination of the ionic energy in a high-temperature plasma by means of thin foils

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 9, 1961, 1061-1065

TEXT: The method of measuring the ionic energies and the energies of neutral particles by means of thin foils is based on the fact that after the passage of a ray through several atomic layers, the fractions of charged and neutral particles within the foil do not depend on their original charge. The main difficulty of this method lies in the production of thin homogeneous foils. The authors produced films by sputtering silver at 10^{-5} - 10^{-6} mm Hg on an aluminum foil (2-3 μ thick). The silver was evaporated. The temperature of the Al base layer exerted a great effect on the quality of foils. In the tests described the Al base layer was kept at nitrogen temperature. After production of the silver foil, the aluminum was removed with caustic soda. Then, the silver foil was taken out from the solution with a very fine copper net.

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S/057/61/031/009/008/019
B104/B102

Determination of the ionic energy in...

The resulting foils had thicknesses of 100-2000 Å, and a size of 10-20 cm². Their inhomogeneity was less than 4 %. After the ion beam has passed through the foil with an energy below 20 kev it contained many neutral particles. Behind the foil, an insulated collector was installed in front of which a grid was arranged with a potential of +40 v against the collector. Thus, both the ions and the neutral particles (due to secondary electron emission) could be recorded. Since every foil is porous, a certain current always reaches the collector at any velocity of ions. The current to the collector increases considerably from the ionic energy at which the ions begin to pass through the foil. This energy is called threshold energy. Measurements with hydrogen, deuterium, and helium ions showed this threshold energy to be proportional to the foil thickness up to a foil thickness of about 1300 Å. At a foil thickness of 100 Å, the energy of hydrogen and deuterium ions can be measured from 500 ev, that of helium ions from 2000 ev. The effect of ion scattering was eliminated by use of a semispherical collector. Thus, it was shown that the current to the collector may be well described by

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Determination of the ionic energy in...

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S/057/61/031/009/008/019
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$I_{\text{coll}} = \alpha (E - E_{\text{thresh}}) I_0$; $\alpha = A/d^n$. d is the thickness of the foil; A is a constant mainly dependent on the coefficient of secondary electron emission; $n = 0.85$ for H^+ , 0.42 for D^+ , and 0.2 for He^+ . The following is obtained for the determination of the integral spectrum:

$$\int_{E_{\text{thresh}}}^{E_{\text{max}}} I(E) dE = \frac{1}{\alpha^2} I_{\text{coll}} \frac{d\alpha}{dE_{\text{thresh}}} = \frac{1}{\alpha} \frac{dI_{\text{coll}}}{dE_{\text{thresh}}}.$$

The authors thank Academician L. A. Artsimovich for valuable advice. There are 3 figures, 1 table, and 9 references: 7 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: I. A. Phillips, Phys. Rev., 97, 2, 404, 1955.

SUBMITTED: October 17, 1960

Card 3/3

42728

S/109/62/007/011/007/012
D295/D308

24 14 17
AUTHORS:

Gott, Yu.V. and Tel'kovskiy, V.G.

TITLE:

Deceleration of light ions in thin metal foils

PERIODICAL:

Radiotekhnika i elektronika, v. 7,
no. 11, 1962, 1956 - 1961

TEXT:

The passage of ions with less than 20keV energy through metal foils has been little studied. The small ion velocity makes both Bohr's and Fermi-Teller's formulas inapplicable. In the described experimental investigation a hydrogen, deuterium or helium ion beam from a high-frequency source with 1.5 - 15 keV energy is deviated by 90° by a sectorial magnetic field with double focussing and passes through 100-500 Å thick foils of Ag, Ti and Ge. The output-beam energy distribution is measured by means of an electrostatic analyzer. The specific energy losses ($-dE/dx$, where E is the ion energy and x is the transverse coordinate of the foil) obtained for several foils

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Deceleration of light ions ...

S/109/62/007/011/007/012
D295/D308

of various thickness are plotted as a function of the mean beam velocity and exhibit a linear relationship for velocities greater than 10^8 cm/sec. Departures from linearity below this velocity are interpreted as due to a reduction of the effective charge owing to electron capture. The linearity coefficients are independent of the ion mass and of the properties of the atoms of the target and are determined mainly by the inter-atomic distances of the crystal lattice of the target. Calculations based on a simplified model for the loss mechanism, in which the target is assimilated to a very dense plasma, are in good agreement with experiment and suggest that, for the velocity interval investigated, energy loss is due mainly to collisions with free electrons. The results of similar experiments with molecular ions (H_2^+ and H_3^+) confirm this view. These ions are dissociated at a small distance ($10 - 20 \text{ \AA}$) from the target input surface and the energy-loss calculations are to be carried out for the dissociation products separately. The most important English-language reference is: J.R. Young, J.Appl. Phys., v. 27, 1956, 1. There are 6 figures and 1 table.

SUBMITTED:

March 19, 1962

Card 2/2

GOTT, Yu.V.; TEL'KOVSKIY, V.G.

Determining the lifetime of a high-temperature plasma on the basis of
the duration of neutron emission. Zhur. eksp. i teor. fiz. 43 no.3:
831-834 '62. (MIRA 15:10)

(Plasma (Ionized gases))

(Neutrons)

1 23827-65 EWT(1)/EWG(k)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/SEC(b)-2/EWA(m)-2
Pz-6/Po-4/Pab-10/P1-4 ICP(c) AT

ACCESSION NR: AP5000833

S/0057/64/034/012/2114/2119

AUTHOR: Gott, Yu.V.; Tal'kovskiy, V.G.

TITLE: Analyzer for the energy spectrum of ions in high-temperature plasma

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.12, 1964, 2114-2119

TOPIC TAGS: plasma energy distribution, plasma diagnostics, ion analyzer

ABSTRACT: One of the significant characteristics of high-temperature plasmas, which is of particular interest in thermonuclear research, is the energy distribution of the ions. However, present techniques for determination of the ion spectrum (optical procedures, high-frequency methods, ion traps and thin foils) all suffer from more or less serious shortcomings. Accordingly, there is proposed a technique and the design of an appropriate apparatus for ion spectrum measurements. The new departure is use of an ultrathin metal foil instead of a gas target, which makes possible substantial simplification of the installation. The analyzer is diagramed in Enclosure 01. The neutral particles are incident on the ultrathin foil 1; the ions, forming incident to passage of the neutrals through the foil, are analyzed in energy in the field of the electrostatic capacitor 2. To increase the

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ACCESSION NR: AP5000833

angular aperture the capacitor plates have a special shape that allows of realizing double focusing of the ion beam. The foil window in the constructed analyzer measures 5 x 20 mm. The energy distribution is measured either by applying a sawtooth voltage to the capacitor plates to obtain a scan or at individual points, narrow energy groups being isolated by applying an appropriate dc bias from the rectifier 8 to the capacitor plates. After the capacitor, the ions pass through the aperture 11, are accelerated by the 5 kV potential difference and strike the first dynode of the electron multiplier 3; the multiplier signal is amplified by the wide-band amplifier 4 and either fed into the PS-10 000 scaler via the time discriminator 5 or applied to the plates of the oscillograph 6. A cross sectional view of the analyzer chamber is given in the figure. The choice of foil is discussed; silver foil 100-200 Å thick was used in the constructed analyzer. The said analyzer was used to investigate the distribution in energy of ions in an adiabatic trap with magnetic mirrors. The results are presented in the form of curves; the distributions obtained with fields of 5 and 8 kOe at the center of the trap are close and comparable with the distribution determined otherwise. Particles with energies down to 4 eV were recorded. It is noted that the reported measurements were intended primarily to verify the potentialities of the technique. Orig. art. has: 6 formulas and 7 figures.

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L 47372-65 EPF(n)-2/EPA(n)-2/ENT(1)/EWG(m) - P1-4/P0-4/P1-5/P0-5 1 P(0) AT/WW
ACCESSION NR: AP5008736 S/0056/65/048/003/0804/0813

AUTHORS: Gott, Yu. V.; Yushmanov, Ye. Ye.

TITLE: Experiments on heating of ions in magnetic mirror traps
with the aid of an alternating electric field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48,
no. 3, 1965, 804-813

TOPIC TAGS: ion heating, plasma heating, magnetic trap, magnetic
mirror, alternating field heating

ABSTRACT: The authors present preliminary results of an investigation
of plasma heating by a modification of the so-called "ion magnetron"
described by the author (with M. S. Iotse, ZhETF v.
1960 and v. 40, 40, 1961, and elsewhere). In this method
a plasma beam is sent along the axis of a magnetic mirror de-
vice (probkotron), and a 20--30 μ sec pulsed potential difference of

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ACCESSION NR: AP5008736

10--40 kV is applied between the plasma and the grounded walls. Alternating voltage injection was investigated, using the apparatus shown in Fig. 1 of the enclosure. The plasma source was a tungsten cathode, heated by an electron beam, and a tubular anode into which about 200 cc of hydrogen was fed continuously per hour. The plasma was studied by means of detectors of charge-exchange particles (using electron emission), electric probes, and a spectrometer to measure the energies of the charge-exchange particles. All the instruments were located in the central cross-section plane of the trap. The plasma produced had a density $\sim 10^{11} \text{ cm}^{-3}$, the density of ions having energies larger than 5 keV being $\sim 3 \times 10^{10} \text{ cm}^{-3}$. A vacuum of $\sim 5 \times 10^{-7} \text{ mm Hg}$ was maintained with the aid of flashed titanium. The electrons remained relatively cold. The plasma generated during a pulse decayed in about 150 μsec , mainly as a result of flute instability. Ion heating was also observed at nonresonant frequencies. It is suggested that the ion acceleration mechanism has a stochastic character, although the main purpose of the work was to in-

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ACCESSION NR: AP5008736

investigate the possibilities of the described injection method, a preliminary interpretation of the results is in agreement with a theory that denies the possibility of pure cyclotron acceleration. The authors thank M. S. Ioffe for suggesting the problem and for useful discussions, A. A. Smirnov for experimental assistance and Ya. I. Smirnov for constructing the rf oscillator. This art. has: 10 pages and 1 formula.

ASSOCIATION: None

SUBMITTED: 22Sep64

ENCL: 01

SUB CODE: ME

NR REF SOV: 007

OTHER: 001

Card 3/43

ACC NR: AP7007683

SOURCE CODE: UR/0386/66/003/002/0092/0096

AUTHOR: Bayborodov, Yu. T.; Gott, Yu. V.; Ioffe, M. S.; Yushmanov, Ye. Ye.

ORG: none

TITLE: Unstable states of a plasma in a trap with combined field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu, v. 3, no. 2, 1966, 92-96

TOPIC TAGS: plasma instability, plasma density, spectrometer, ion current, plasma antenna, plasma injection

ABSTRACT: The authors investigate distinct unstable states of a plasma observed in a trap with combined field ("minimum B" type) and offer a possible interpretation of the physical nature of the instability. It has been established that each density drop is accompanied by the appearance of high-frequency fields in the plasma. A loop antenna installed near the trap wall registered a burst of electromagnetic radiation whose spectrum consists of the ion-cyclotron frequency and its harmonics (Fig. 1d); the frequency corresponds to the magnitude of the magnetic field in the central region of the trap. The burst duration, as well as the duration of the drop itself, is 15 - 20 μ sec. Figure 1c shows the flux of neutral atoms produced by charge exchange and possessing an energy of 36 keV. At the start of the plasma decay there are no ions with this energy, and their appearance coincides exactly

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ACC NR: AP7007683

with the instant of the jump. (An energy of 40 keV corresponds to proton Larmor orbits with diameter equal to the radius of the vacuum chamber. According to the conditions of collimation of the flux of charge-exchange products entering the spectrometer, protons with higher energies could not be registered in these experiments.) To observe directly the plasma loss during the time of the drop and to ascertain the localization of this loss, the flux of particles from the plasma to the walls of the chamber was measured. On the inner surface of the chamber a total of 26 plate electrodes were installed in order to register the ion current to different elements of the wall surrounding the plasma. Short-duration ejection of particles, both to the ends of the trap and to the side wall, was shown to occur in synchronism with the density jumps (Fig. 1b). Comparison of the signals at the

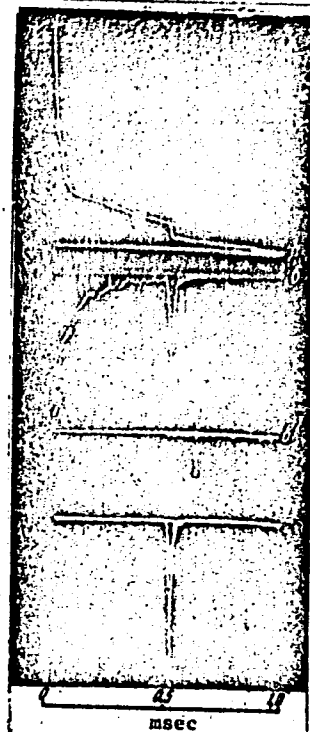


Fig. 1. a - Flux of neutral particles due to charge exchange, b - ion current to the side wall of the chamber, c - signal from energy spectrometer ($E = 36$ keV), d - signal from loop antenna.

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ACC NR: AP7007683

different electrodes showed that the loss occurs predominantly along the force lines of the resultant magnetic field through the end and radial mirrors. The data shows that the density jumps are due to a short burst of instability of the ion-cyclotron type. This is evidenced both by the frequency spectrum of the produced alternating fields and in the appearance of a group of ions accelerated to high energies in a transverse direction. The acceleration of the ions is apparently produced in resonant fashion in fields of cyclotron frequency that are produced in the plasma, and in this respect it is completely analogous to the acceleration observed in traps with external injection when the Harris anisotropic cyclotron instability is excited. The authors note that density jumps outward similar to those described in this article were observed also in a decaying plasma with hot electrons. In this case the instability develops at electron-cyclotron frequencies. Orig. art. has: 1 figure and 1 formula.

SUB CODE: 20 / SUBM DATE: 02Dec65 / ORIG REF: 005 /
OTH REF: 002

Card 3/3

GOTTA, Alexandru, ing. tehnolog (Bucuresti)

Calculation of the micanite scale dimensions in manufacturing
insulant cones for the collectors of the rotative electric
machines. Electrotehnica 9 no.5:157-160 My '61.

1. Fabrica "Klement Gottwald", Bucuresti.

GOTTA, V.

"Logging and fish breeding in mountain streams." p. 41. (REVISTA PADURILOR, Vol. 68, no. 4, April 1953, Bucuresti, Rumania)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 4, April 1954, Uncl.

GOTTE, A.

GOTTE, A. Survey of some fields of dressing of nonmetallic ores. p. 211.

No. 3, 1956.

RUDARSKO-METALURSKI ZBORNIK

TECHNOLOGY

Ljubljana, Yugoslavia

So: East European Accession, Vol. 6, No. 2, February 1957

GOTTE, V.

New data on the geology and ore potential of the Brandt region
near Freiberg. Geol. rud. mestorozh. 5 no.2:111-114 Mr-Apr '63.
(MIRA 16:6)

1. Tsentral'nyy geologicheskiy institut Gernanskoy Demokrati-
cheskoy Respubliki.
(Freiberg—Ore deposits)

RUMANIA

GOTTERBARM, P., MD, Pharmacist.

Bucharest, Farmacia, No 7, Jul 63, pp 435-442

"Stoichiometric Factors Useful in Pharmaceutical Practice."

GOTTESMAN, Vil'yam I'vovich; YEFREMOVA, Ye.V., red.; ANDRIANOV, B.I., tekhn.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000516420014-8

[Profiles for airplane models] Profili dlia letaiushchikh modelei.
Moskva, Izd-vo DOSAAF, 1958, 92 p.

(MIRA 11:7)

(Airplanes--Models)

GOTTFRIED, J.

Transformation of a complete polygon to a star, p. 13. (PRZEGLAD ELEKTROTECHNICZNY, Warszawa, Vol. 31, no. 1, Jan. 1955.)

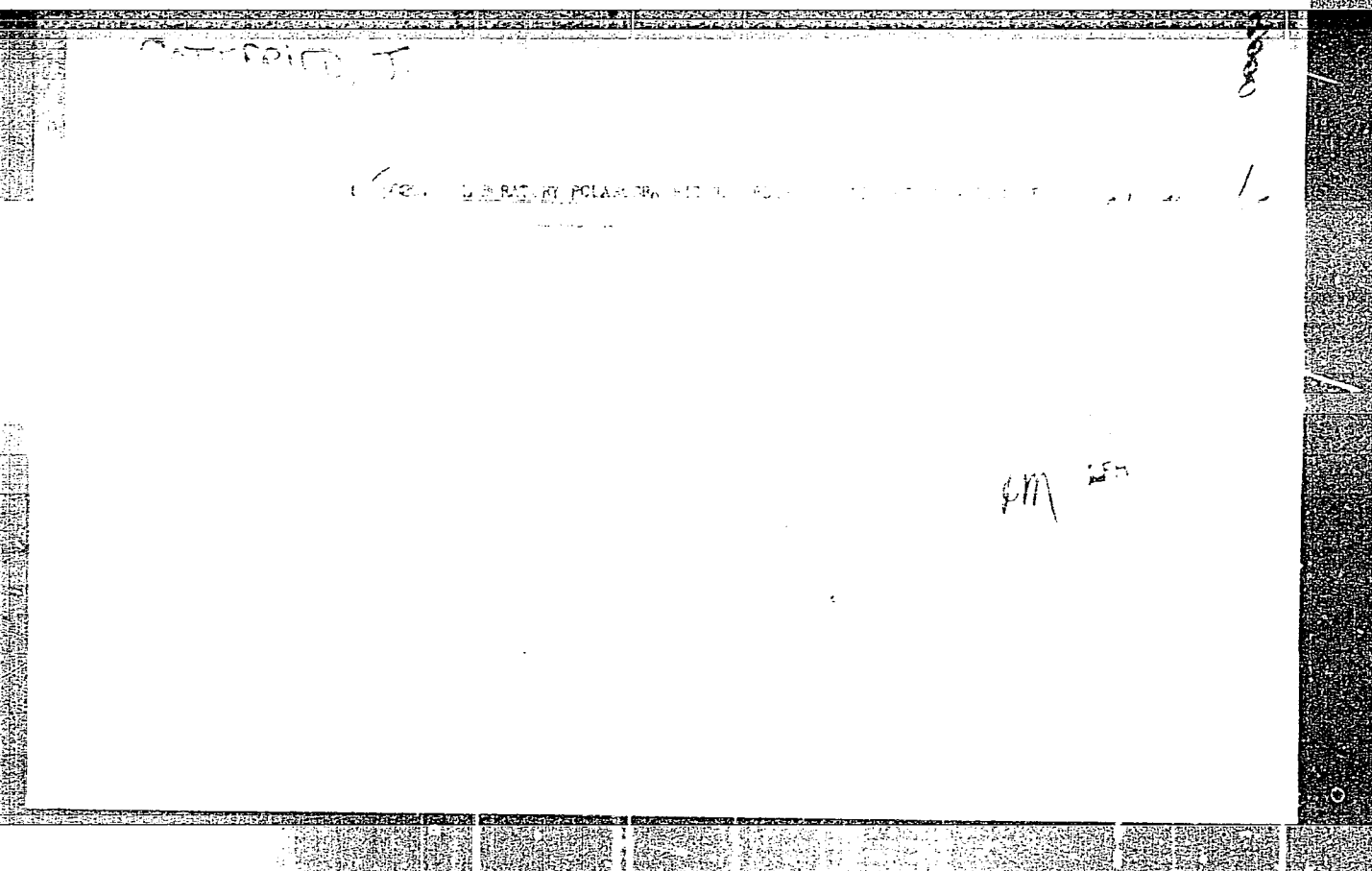
SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, Jan. 1955, Uncl.

GOTTFRIED, J.

A contribution to the analytical work of the

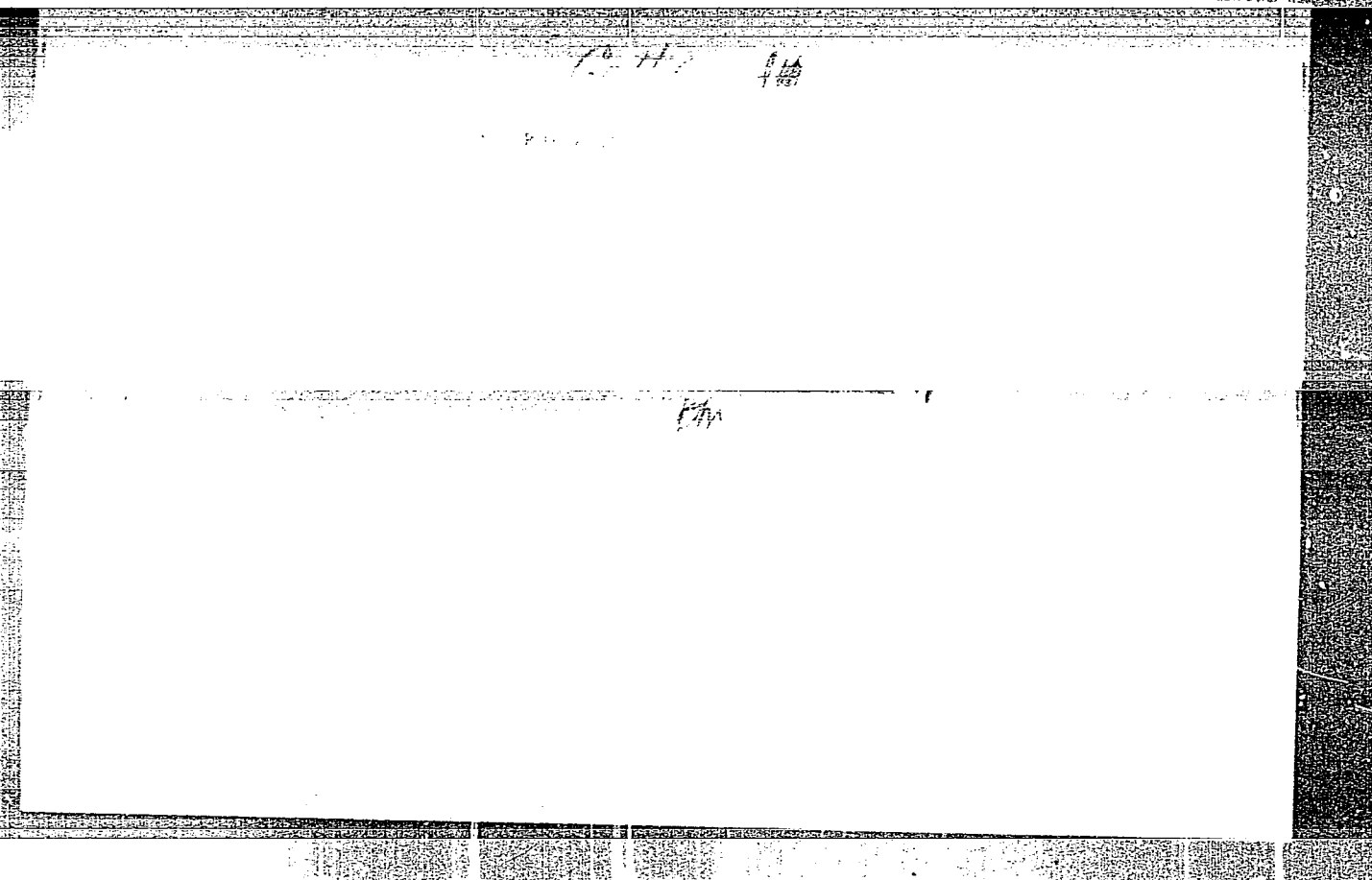
on the determination of the

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"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000516420014-8



APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000516420014-8"

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57166.

Author : Shul'tsek Z., Gottfried J.

Inst : Not given.

Title : Rapid Determination Methods of Metals and of Raw Materials. IV. Polarographic Determination of Germanium.

Orig Pub: Chem listy, 1957, 51, No 11, 2010-2016.

Abstract: Germanium (Ge^{4+}) when reduced from solutions at $\text{pH} > 5$, develops a peak in the emf curve. At peak value the voltage of -1.55 (compared to the saturated Hg_2Cl_2 electrode) can be attained on the

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CZECHOSLOVAKIA / Analytical Chemistry. Analysis of
Inorganic Substances.

E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57166.

Abstract: background of Na_2CO_3 , Na_2CO_3 and complexon III, or K_2CO_3 and KCN. The Ga wavelength increases with increased concentration of Na_2CO_3 . The presence of small quantities of SiO_2 does not interfere with the determination of Ga. However, in the presence of large quantities of SiO_2 the Ga wave is completely suppressed. As the result of this, SiO_2 has to be removed beforehand by precipitation with caustic. NO_3^- ions in contrast to SO_4^{2-} ions cause the distortion of the Ce waves. At high Cl^- concentrations the half wave potential of Ce wave is shifted toward more positive values. With increasing Cl^- concentration the peak of the Ce wave increases up to a limiting point and continues to

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CZECHOSLOVAKIA / Analytical Chemistry. Analysis of
Inorganic Substances.

E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57166.

Abstract: remain at this value. The polarographic measurements, therefore, have to be conducted in a solution of approximately constant Cl^- concentration. The presence of V, and As(3+) interfere with polarographic determination of Ge. That of As(5+) does not. In the precipitation of Fe and Al hydroxides, Ge is adsorbed by the precipitates. Filtration of a solution through filter paper caused distortion and reduction of the polarographic wave of Ge. For the minerals of low Fe content, good results are obtained when alkaline fusion is employed, particularly when a fusion is performed with NaOH in the

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Card 4/4

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 989.

Author : Gottfried, J.
Inst : Not given.
Title : The Methods For Determining Titanium and Iron in Clays Containing Titanium.

Orig Pub: Chem. prumysl., 1958, 8, No. 4, 176-180.

Abstract: The analytical results obtained by various methods on tatanium-containing clays are discussed; several thousand samples of various clays and intermediate products obtained in $TiCl_4$ production were used for the analyses. It was established that among the titrometric methods, the most suitable one is the method of potentiometric titration with $CrSO_4$ [sic], which allows the sim-

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APPROVED FOR RELEASE: 03/13/2001
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CIA-RDP86-00513R000516420014-8

COUNTRY : Czechoslovakia E-2
CATEGORY : Analytical Chemistry.
ABS. JOUR. : RZhKhim., No. 7, 1959, No. 23044
AUTHOR : Sulcek, Z.; Gottfried, J.
INST. :
TITLE : Rapid Methods of Analysis of Metals and Mineral Raw Materials. IV. Polarographic Determination of Germanium.
ORIG. PUB. : Collect. czechosl. chem. commun., 1958, 23, No 8, 1515-1522
ABSTRACT : See RZhKhim, 1958, 57166. Communication III see RZhKhim, 1959, 947.

CARD:1/1

COUNTRY : CZECHOSLOVAKIA E
 CATEGORY : Analytical Chemistry. Analysis of Inorganic Substances
 RES. JOUR. : RZKhim., No. 1 1960, No. 645
 AUTHOR : Gottfried, J.; Jakovlev, J. V.
 INST. : -
 TITLE : Determination of Copper in Metallic Germanium by the Activation Method
 ORIG. PUB. : Chem. promysl, 1959, 9, No 4, 179-182
 ABSTRACT : The analyzed sample of metallic germanium was irradiated in a nuclear reactor with a neutron flow of $5 \cdot 10^{11} - 2 \cdot 10^{13}$ neutrons/cm² sec. The effectiveness of the chemical technique of separation and the degree of purification of Cu from Zn was measured with the aid of labeled atoms. It was established that the admixture of Zn has practically no influence upon the accuracy of determination and that the separated

CARD:

1/2

E-14

GOTTFRIED, J. ; JARA, V.

Determination of germanium in ammonium waters. p. 471.

CHEMICKY PRUMYSL. (ministerstvo chemického průmyslu) Praha, Czechoslovakia,
vol. 9, no. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 11, Nov. 1959
Uncl.

80369

Z/009/60/000/04/007/041
E142/E235

5.4500(b)

AUTHORS: Martínek, K., and Gottfried, J /4

TITLE: Effect of Anions on β -Radiation of Potassium Salts

PERIODICAL: Chemický průmysl, 1960, Nr 4, pp 192-194

ABSTRACT: Radioactive decomposition of the natural K^{40} isotope, proceeds at a very slow rate under formation of the non-radioactive isotopes Ar and Ca and is accompanied by β - and γ -radiation. It is, therefore, possible to assume that the isotope-composition of natural potassium is constant (Ref 1). In general, there is a linear dependence between the radiation intensity of potassium and its concentration in solutions (Ref 2), as well as in solid samples (Ref 3), except for potassium iodide (Ref 4) where the radiation intensity exceeds that due to the potassium content of the salt. It has been suggested that the increase in the radiation intensity of potassium salts in the presence of iodides and bromides is related to their concentration (Ref 6). Tests were carried out on the radiometric estimation of potassium in NPK fertilisers and the effect of various anions on the β -radiation of potassium was evaluated. It was found that the radiation intensity in

Card 1/2

JAGER, Lubomir; GOTTFRIED, Jaroslav; NYVLT, Jaroslav.

Examination of the kinetics of crystalline urea drying. Chem
prum 13 no.8:412-413 Ag'63.

1. Vyzkumny ustav anorganicke chemie, Usti nad Labem.

NYVLT, Jaroslav; GOTTFRIED, Jaroslav; KRICKOVA, Jaroslava

Control of the sintering tendency of crystalline urea. Pt. 12.
Chem prum 14 no.5:242-244 My '64.

1. Research Institute of Inorganic Chemistry, Usti nad Labem.

NYVLT, Jaroslav; GOTTFRIED, Jaroslav

Adaptation of the correlation method for calculation of solubility
in ternary systems. Chem prum 14 no. 7: 376-378 JI '64.

1. Research Institute of Inorganic Chemistry, Usti nad Labem.

NYVLT, J.; GOTTFRIED, J.; KRICKOVA, J.

On crystallization. Pt.10. Coll Cz Chem 29 no.1:161-167 Ja'64

1. Forschungsinstitut fur anorganische Chemie, Usti nad Labem.

NYVLT, J.; GOTTFRIED, J.; KRICKOVA, J.

Crystallization. Pt. 11. Coll Cz Chem 29 no.10:2283-2289 0' 64.

1. Forschungsinstitut fur anorganische Chemie, Usti nad Labem.

JAGER, Lubomir; GOTTFRIED, Jaroslav; HYVL, Jaroslav; SURA, Jindrich

Kinetics of forming biuret from urea. Chem prum 15 no.1:
4-7 Ja '65.

1. Research Institute of Inorganic Chemistry, Usti nad Labem.

3

CZECHOSLOVAKIA

NYLT, J; SKRIVANEK, J; GOTTFRIED, J; KRICKOVA, J

Research Institute for Inorganic Chemistry
(Forschungsinstitut für anorganische Chemie),
Ústí nad Labem (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 5, May 1966, pp 2127-2136

"Crystallization. Part 19: Influence of agitation
on the latitude of metastable zones."

L 63303-65 EMP(b)/EMP(t) ID

ACCESSION NR: AP5020840

CZ/0034/64/000/009/0609/0617

AUTHOR: Harok, Milan (Engineer); Gottfried, Kamil (Engineer); Hamza, Zdenek (Engineer)

TITLE: Balanced steel deoxidized in the ingot mold. Part I.

SOURCE: Hutnicke listy, no. 9, 1964, 609-617

TOPIC TAGS: steel, metallurgic furnace, metal casting

Abstract [Authors' English summary]: Balanced steel deoxidized in the ingot mold is manufactured in the open hearth furnace by the technique as rimming steel. Amount of Al used as deoxidizer depends on the amount of C in the heat. The best way of adding Al is to add 1/3 shortly before the ingot casting is completed, and remaining 2/3 shortly after that. The structure of the mold deoxidized steel ingot consists of the balanced steel surface layer, and the balanced core. The structure is a function of the teeming rate. The steel is nearly as chemically homogenous as the killed steel grades. Bottom-poured, mold-deoxidized steel gives better surface of the rolled products, and higher yields than rimming steel. Orig. art. has 3 formulas, 9 graphs, and 6 tables.

Card 1/2

L 63303-65

ACCESSION NR: AF5020840

ASSOCIATION: Vyzkumny a zkusebni ustav NHKG, Kuncice (Research and Control
Institute, NHKG)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 004

JPRS

Card ^{KC}
2/2

L 63292-65 EMP(b)/EMP(t) ID

ACCESSION NR: AF5020871

CZ/0034/64/000/010/0693/0698 13

AUTHOR: Harok, Milan (Engineer); Gottfried, Kamil (Engineer); Hamza, Z. (Engineer) 12

TITLE: Balanced steel deoxidized in the ingot mold. Part II. Properties of steel

SOURCE: Hutnicke listy, no. 10, 1964, 693-698

TOPIC TAGS: steel, cast steel, metal test, tensile stress, pipe, fabricated structural metal

ABSTRACT: An attempt is made to determine the segregation degree of balanced steel billets. Discussed is the scattering of values in tensile tests of tubes and strips made of balance steel, and minimum segregation and dispersion of the tensile test results found. A comparison of transition temperatures, aging, and weldability showed that balanced steel resembled rimming steel grades, and may be used as its substitute. It can replace killed steel only in exceptional cases. Orig. art. has: 6 graphs, 1 figure, 4 tables.

ASSOCIATION: Vyzkumny a zkusebni ustav NHRG, Ostrava-Kuncice (Research and Testing Institute NHRG)

Card 1/2

L 63292-65

ACCESSION NR: AP5020871

SUBMITTED: 00

ENCL: 00

SUB CODE: NM, AS

NR REF SOV: 001

OTHER: 010

JPES

steel making

16

Card

16
2/2

Gott hard, F.

HUN C.

Laboratory installation for continuous fractionation. F.
Gott hard, *Rev. chim.* (Bucharest) 3, 65-66 (1954).--A continuous fractionation column, described in detail, gave satisfactory results in distg. (unspecified) azeotropic mixts.
Gerard Aufleger

18/5/11

RUMANIA/Chemical Technology. Chemical Products and Their
Application. Part 3. - Industrial Organic
Synthesis.

H

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 71643.

Author : F. Gotthard, Martha Gotthard.

Inst :

Title : Effect of Distillate Yield on Separation of
Components of N-Hexane, Methylcyclopentane and
Benzene Mixture at Extractive Distillation with
Aniline.

Orig Pub: Rev. chim., 1956, 7, No 11, 634-638.

Abstract: Results of experimental extractive separation
with aniline of a mixture containing (in % by
weight) cyclopentane - 1.5, 2-methylpentane - 33.3,
n-hexane - 33.2, methylcyclopentane - 19, and ben-

Card : 1/3

7/

RUMANIA/Chemical Technology. Chemical Products and Their
Application, Part 3. - Industrial Organic
Synthesis.

H

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 71643.

zene - 13 using a laboratory distillation column of
33 theoretical plate productivity are presented.
The yield of naphthenes (I) drops sharply at the
distillate amount above 65%. The concentration of
I in the residue is maximum (53 to 55%) at the dis-
tillate yield of 73 to 75%, after which it sharply
drops; the residue still contains considerable
amounts of paraffins (II) (from 3 to 29.6%) at the
distillate yield of 80%. The best recommended
technological scheme of methylcyclopentane separa-
tion foresees a two-stage extractive distillation:
the first column works with a distillate yield below
73 to 75% in order to secure a large yield of I in

Card : 2/3

RUMANIA/Chemical Technology. Chemical Products and Their
Application, Part 3. - Industrial Organic Synthesis.

H

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 71643.

the residue, which undergoes a second extractive distillation. A heavy fraction without I and a light fraction containing benzene and I besides II are obtained with the second column. The light fraction is recirculated into the first column.

Card : 3/3

72

RUMANIA/ Chemical Technology. Chemical Products

H-23

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000516420014-8

and Their Applications. Chemical Processes
and Rocket Fuel Lubricants.

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9710.

Author : Gotthard, F.

Inst : Not given.

Title : Separation of Cyclohexane from Benzene by Rectification.

Orig Pub: Rev. chim., 1957, 8, No 10, 644-649.

Abstract: The possibility of separating cyclohexane (I) from benzene (II) by rectification depends on the chemical composition of II and is determined chiefly by the ratio of C_6H_6 (III) concentration and the other components in the basic fractions of raw material. I is separated by the primary

Card 1/4

125

ROMANIA / Chemical Technology. Chemical Products H-23
and Their Applications. Chemical Process-
ing of Natural Gases and Petroleum. Motor
and Rocket Fuel Lubricants.

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9710.

Abstract: and IV; the liberated I is contaminated only
with a small quantity of V. d) II contains a
larger quantity of III, sufficient either for
partial or for total removal of I in the form
of A; I in the fraction 79-82° is badly contam-
inated by V and 2,2,3-dimethylbutane or is not
contained in this fraction at all. A three dim-
ensional diagram is given, to determine the pos-
sibility of producing I and its yield in recti-
fication of the fraction with a boiling point of
72-82° depending on the content of I, III and IV
in this fraction. On a laboratory column (33
theoretical plates) with an average fractional

Card 3/4

189

GOTTHARD, F.; REUSZ, N.

Testing a pellicular evaporator. p. 204.

REVISTA DE CHIMIE. Bucuresti, Rumania. Vol. 10, no. 4, Apr. 1959.

Monthly List of East European Accessions. (EEAI), LC. Vol. 8, no. 9, ^{Sept.}1959.
Uncl.

GOTTHARD, FR.
SURNAME, Given Names

Country: Rumania

Academic Degrees:

(1)

Affiliation: -not given-

Source: Bucharest, Revista de Chimie, Vol 12, No 8, Aug 1961, pp 489-491.

Data: "Rectification of n-Hexane-Benzene Mixtures and the Liquid-Vapor Equilibrium of these Mixtures."

Authors:

GOTTHARD, Fr., -Engineer.-
MINEA, I., -Engineer.-

070 901643

139

GOTTHARD, Fr.; MINEA, I.

Separation of methyl-cyclopentane from benzene by rectification.
II. Rev chimie Min petr 13 no.3:134-140 Mr '62.

ACCESSION NR: AP4039548

R/0003/64/015/005/0252/0256

AUTHOR: Ciocoiu, Paulina; Gotthard, Fr.; Minea, I.; Russu, R.

TITLE: Synthesis and applications of some molecular sieves. I. Some properties and uses of molecular sieves

SOURCE: Revista de chimie, v. 15, no. 5, 1964, 252-256

TOPIC TAGS: molecular sieve, petrochemical application, persorption, aluminum-silicates, crystalline structure, geometrical selectivity, physical selectivity, persorption heat, purification, separation, pH, hydrocarbons, mercaptan, drying, monomers, inert gas, Ar, H sub 2S, H sub 2, O sub 2, N sub 2, C sub 2, H sub 4, CO sub 2

ABSTRACT: Molecular sieves are rigid substances with tridimensional structure having pores and cavities which allow selective penetration of atoms or molecules of different dimensions. This first note is a short review of literature on the subject with emphasis on application on molecular sieves to petrochemical industry.

ASSOCIATION: Institutul Petrochim Ploiesti (Ploiesti Petrochemical Institute)

Card 1/2

ACCESSION NR: AP4039548

SUBMITTED: 00

DATE ACQ: 19Jun64

ENCL: 00

SUB CODE: GG, FP

NO REF SOV: 011

OTHER: 057

Card 2/2

GOTTHARD, J.

The Kaldska Peat Bog, state wildlife reservation. p. 116.
OCHRANA PRIRODY. (Ministerstvo kultury. Statni pece o
ochranu prirody) Praha.
Vol. 11, no. 4, May 1956.

SOURCE: EEAL - LC Vol. 5 No. 10 Oct. 1956

HUNGARY

KRAKOVITS, Gabor, SOBEL, Matyas, and GOTTHARD, Lajos. Department of Orthopedics (Orthopaediai Osztaly) of the Janos Hospital (Janos Korhaz) [Budapest].

"Sexual Differences in the Hip-Joint Flexibility of New-Born Animals"

Budapest, Kiserletes Orvostudomany, Vol 18, No 6, 1966; pp 600-603.

Abstract: Using the method described by Crelin, the authors demonstrated the existence of sexual differences in the hip-joint flexibility of new-born animals. In the case of female animals (rats, hamsters, guinea pigs) the flexibility of the hip joint is greater, even from a physiological viewpoint, than in male animals. These findings are related to the fact that the incidence of hip sprain or dysplasia in young girls is higher than in boys. The sexual difference in the flexibility of the hip joint is attributed, on the basis of literature data, to a hormonal effect. 15 References, all Western. Manuscript received 27 Dec 65.

1/1

GOTTHARD, MARTHA

RUMANIA/Chemical Technology. Chemical Products and Their
Application. Part 3. - Industrial Organic
Synthesis.

h

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 71643.

Author : F. Gotthard, Martha Gotthard.

Inst :

Title : Effect of Distillate Yield on Separation of
Components of N-Hexane, Methylcyclopentane and
Benzene Mixture at Extractive Distillation with
Aniline.

Orig Pub: Rev. chim., 1956, 7, No 11, 634-638.

Abstract: Results of experimental extractive separation
with aniline of a mixture containing (in % by
weight) cyclopentane - 1.5, 2-methylpentane - 33.3,
n-hexane - 33.2, methylcyclopentane - 19, and ben-

Card : 1/3

7/

RUMANIA/Chemical Technology. Chemical Products and Their
Application, Part 3. - Industrial Organic
Synthesis.

H

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 71643.

zene - 13 using a laboratory distillation column of
33 theoretical plate productivity are presented.
The yield of naphthenes (I) drops sharply at the
distillate amount above 65%. The concentration of
I in the residue is maximum (53 to 55%) at the dis-
tillate yield of 73 to 75%, after which it sharply
drops; the residue still contains considerable
amounts of paraffins (II) (from 3 to 29.6%) at the
distillate yield of 80%. The best recommended
technological scheme of methylcyclopentane separa-
tion foresses a two-stage extractive distillation:
the first column works with a distillate yield below
73 to 75% in order to secure a large yield of I in

Card : 2/3

ALEXANDER, Fedor A. and GOTTIK, R. P. ①

"On the Nature of Radioactive Anomalies over Gas and Oil Fields."

report to be submitted for the Conference on Nuclear Geophysics,
Krakow, Poland, 24-30 Sept 1962.

Gottikh, B. P.

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26699.

Author : Kochetkov, N.K., Khorlin, A.Ya.,
Gottikh, B.P.; Nesmeyanov, A.N.

Inst : Academy of Sciences of USSR.

Title : Synthesis of Alkenyl- β -chlorovinylketones.

Orig Pub : Izv. AN SSSR, Otd. khim. n., 1956, No. 9,
1053 - 1058.

Abstract : The following methods of synthesis of alkenyl- β -chlorovinylketones (ACVK) were developed:
the method of direct condensation of acetylene
(I) with chloroanhydrides (CA) of α, β -unsaturated acids in presence of $AlCl_3$, and the method
of condensation of I with CA of α - or β -chloro-
replaced acids in presence of $AlCl_3$ with follow-
ing dehydrochlorination of the produced α -

Card 1/6

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26699.

(or β)-chloroalkyl- β -chlorovinylketone. Experiments with CA of α - or β -bromoreplaced acids did not succeed. It is shown that ACVK react with β -naphthol (II) in presence of FeCl_3 producing ferrochlorides of 2-alkenyl-naphthopyrilium. 88 g of CA of butyric acid, 119 g of SO_2Cl_2 and 1 g of I_2 are heated (45 to 50 hours at 90 to 110°), distilled, the fraction of the boiling point 115 to 150° is collected, shaken with mercury, distilled using a column still (10 to 15 theoretical plates); the yield of CA or α -butyric acid (III) is 60.3%, boiling point 129 to 132°/756 mm, $n_D^{20} = 1.4475$, $d_4^{17} = 1.2360$. CA of

Card 2/6

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26699.

isovaleric acid, 167 g of SO_2Cl_2 and 1 g of I_2 , the yield was 58%, boiling point 145.5 to 146.5°/749 mm. I is conducted into a solution of 81 g of CA of β -chloropropionic acid (V) in 150 mlit of CCl_4 (6 hours) and 85 g of AlCl_3 is introduced (2 hours), at 10 to 15°, poured out on ice, CHCl_3 is extracted with 63 g of a mixture of vinyl- β -chlorovinylketone (VI) and β -chloroethyl- β -chlorovinylketone (VII), treated with 65 g of $\text{C}_6\text{H}_5\text{N}(\text{C}_2\text{H}_5)_2$ (VIII) at about 20° and 1 hour at about 100°, diluted with ether, filtered, washed with 5% H_2SO_4 ; the yield of VI is 31.5%, boiling point 48 to 49.5°/14 mm, $n_D^{20} = 1.4938$, $d_4^{20} = 1.1274$. 57 g of a

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USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2
Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26699.

mixture of propenyl- β -chlorovinylketone (IV) and α -chloropropyl- β -chlorovinylketone, boiling point 81 to 86°/15 mm, was received analogously of 81 g of III and 85 g of $AlCl_3$ in 200 mlit of CCl_4 by conducting I (7 to 8 hours at 15 to 20°); after the treatment with 51 g of VIII, the yield of XI was 47.3%, boiling point 70 to 72°/10 mm, melting point 38 to 39°. A fraction of the boiling point of 78 to 92°/10 mm was received in the amount of 30 g from 60 g of IV and 60 g of $AlCl_3$ in 150 mlit of dichloroethane (X) by conducting I (7 hours at 15 to 20°); it was treated with 32.5 g of VIII, yield of isobutenyl- β -chlorovinylketone (XI) was 32.7%, boiling point 76 to 79°/11 mm. 13.3 g of $AlCl_3$ is added to

Card 4/6

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26699.

10.5 g of CA of crotonic acid in 50 mlit of X, and I is let through (3.5 hours at 20 to 25°), X is separated, extracted with CHCl_3 , yield of IX is 50.5%, boiling point 64 to 65°/7 mm. XI (yield 34%, boiling point 71 to 73°/10 mm, $n_D^{20} = 1.5038$, $d_4^{20} = 1.0644$) was obtained

analogously from 25 g of CA of β, β -dimethylacrylic acid in 75 mlit of X and 32 g of AlCl_3 by letting through I (9 hours at 8 to 120°). 60 g of AlCl_3 is added (2 hours) to a solution of 57.3 g of V in 120 mlit of CCl_4 , I is let through (7 hours at not above 20°), the yield of VI is 17.7%; the yield of VII is 38.5%

boiling point 100 to 102°/15 mm, $n_D^{20} = 1.5045$,

Card 5/6

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26699.

$d_4^{20} = 1.2754$. 2 g of II and 12 mlit of water=

free FeCl_3 in concentrated HCl is added to a solution of 1.3 g of IX in 20 mlit of glacial CH_3COOH . The yield of ferrichloride of 2-propenylnaphtho-1,2:5,6-pyridium is 67%, melting point 135 to 137° (from glacial CH_3COOH , dissoci.). Ferrichloride of 2-isobutenylnaphtho-1,2:5,6-pyridium was prepared analogously of 0.7 g of XI in 10 mlit of glacial CH_3COOH and 1 g of II and 6 mlit of FeCl_3 in concentrated HCl; yield 71.5%, melting point 186 to 188° (from glacial CH_3COOH).

Card 6/6

GOTTIKH, B.P.

ARENDAKUK, A.P.; BUDOVSKIY, E.I.; ~~GOTTIKH, B.P.~~; KARPEYSKIY, M.Ya.
KUDRYASHOV, L.I.; SKOLDINOV, A.P.; SMIRNOVA, N.V.; KHORLIN, A.Ya.
KOCHETKOV, N.K.

Dihydrosarcomycin and related compounds. Part 1. Zhur.ob.khim.
27 no.5:1312-1318 My '57. (MLBA 10:8)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh
nauk SSSR.

(Antibiotics)

Gottlieb, B.P.

7
✓ Condensation of alkenyl 2-chloroethyl ketones with cyclo-
pentadiene. N. I. Kochetkov and B. P. Gottlieb (State
Univ., Moscow). *Zhur. Obshchei Khim.* 27, 1955-60 (1957).

CH₃CH=CHCOCH₂CHCl₂ (17 g) treated with good cooling
with 1.5 g of cyclopentadiene (1), and the mixture filtered after
10 min. Yield 0.5 g, mp 4.5°.

Anti-3-en-2-yl 2-chloroethyl ketone. In the presence of a hydroquinone in Et₂O
this ketone is reduced in the presence of a hydroquinone in Et₂O.

1.5 g of 17 and 1.5 g of cyclopentadiene (1) were dissolved in 10 ml of Et₂O and
the mixture was filtered after 10 min. Yield 0.5 g, mp 4.5°.

1.5 g of 17 and 1.5 g of cyclopentadiene (1) were dissolved in 10 ml of Et₂O and
the mixture was filtered after 10 min. Yield 0.5 g, mp 4.5°.

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the mixture was filtered after 10 min. Yield 0.5 g, mp 4.5°.

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the mixture was filtered after 10 min. Yield 0.5 g, mp 4.5°.

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the mixture was filtered after 10 min. Yield 0.5 g, mp 4.5°.

BM

SOV/63-3-6-36/43

AUTHORS: Kochetkov, N.K., Gottikh, B.P., Karpeyskiy, M.Ya., Khomutov, R.M.

TITLE: The Configuration of β -Chlorovinylketones (O konfiguratsii β -khlorvinilketonov)

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1958, Vol III, Nr 6, p 834 (USSR)

ABSTRACT: It is supposed that β -chlorovinylketones have a trans-configuration, since the only product of the oxidation of the sodium hypochlorite of the methyl- β -chlorovinylketone is the trans-chloroacrylic acid.
There are 6 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut farmakologii i khimoterapii (Scientific Research Institute of Pharmacology and Chemical Therapy)

SUBMITTED: May 7, 1958

Card 1/1

AUTHORS: Kochetkov, N. K., Gottikh, B. P., SOV / 79-28-6-15/63
Kudryashov, L. I.

TITLE: The Conversion of β -Chlorovinylketones With β -Dicarbonyl
Compounds (Vzaimodeystviye β -khlorvinilketonov s β -dikar-
bonil'nymi soyedineniyami) V. Ketovinylation of α -Alkyl Ace-
toacetic Esters (V. Ketovinilirovaniye α -alkilatsetouksus-
nykh efirov)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 6, pp. 1508-1511
(USSR)

ABSTRACT: In continuation of the previous papers on the synthesis of
 γ -ketoalkenylmalonic esters it was of interest to the authors
to extend the limits of ketonylation of the compounds with
a movable methylene- and methenyl member. First the authors
investigated the ketovinylation of the α -alkylacetoacetic
esters described in this paper. Based on the experience col-
lected (Ref 4) on the conversion of the β -chlorovinylketones
with acetoacetic ester in the presence of potash in boiling
toluene, in the presence of only one movable hydrogen atom,
secondary processes could be excluded in the present case and

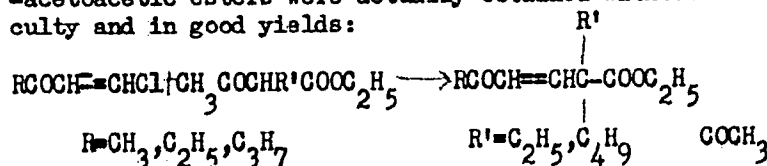
Card 1/3

SOV/79-28-6-15/63

The Conversion of β -Chlorovinylketones With β -Dicarbonyl Compounds.

V. Ketovinylation of α -Alkyl Acetoacetic Esters

the sole formation of products of a normal ketovinylation could be expected. In the conversion of β -chlorovinylketones with sodium derivatives of the α -alkyl acetoacetic esters in benzene the hitherto unknown α -alkyl- α -(γ -ketoalkenyl)-acetoacetic esters were actually obtained without difficulty and in good yields:



Owing to the accessibility of the initial substances and its simple method this reaction is a convenient method for the synthesis of these interesting and much promising compounds. They are high-boiling and stable oils which, however, easily resinify in distillation in an insufficient vacuum. Their structure is proved analytically. The result of the hydration of one of these compounds points to the presence of a double bond in the ketovinylation products, which fact is to be proved further by conversions. There are 5 references, 5 of which are Soviet.

Card 2/3

SOV/79-28-6-15/63

The Conversion of β -Chlorovinylketones With β -Dicarbonyl Compounds.
W. Ketovinylation of α -Alkyl Acetoacetic Esters

ASSOCIATION: Institut farmakologii i khimioterapii Akademii meditsinskikh
nauk SSSR
(Pharmacological and Chemo-Therapeutic Institute, Academy of
Medical Sciences USSR)

SUBMITTED: May 27, 1957

1. Ketones--Chemical reactions

Card 3/3

AUTHORS: Kochetkov, N. K., Gottikh, B. P. SOV/79-28-10-23/60

TITLE: Reaction of β -Chloro-Vinyl Ketone With β -Dicarbonyl Compounds (Vzaimodeystviye β -khlorvinilketonov s β -dikarbonil'nyimi soyedineniyami) VII. Acid Cleavage of the α -Alkyl- α -(3-Ketoalkenyl)-Acetic Esters (VII. Kislotnoye rasshchepleniye α -alkil- α -(3-ketoalkenil)-atsetouksusnykh efirov)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 10, pp 2732 - 2735 (USSR)

ABSTRACT: The α -alkyl- α -(3-ketoalkenyl)-acetic esters obtained by the authors (Ref 1) by the keto vinylation of α -alkyl acetic ester are of interest for organic synthesis. The authors began their investigation with the reaction of their acid cleavage. These compounds are related to the acid decomposition of α,α -diacyl derivatives of the esters of fatty acids so that an easier separation of the acyl group than of the β -ketovinyl group was to be expected. The cleavage of the α -alkyl- α -(3-ketoalkenyl)-acetic esters according to Dieckmann (Ref 2) and Bouveault (Ref 3) (Dikman, Buvo) failed due to their

Card 1/3

Reaction of β -Chloro-Vinyl Ketone With β -Dicarbonyl SOV/79-28-10-23/60
Compounds. VII. Acid Cleavage of the α -Alkyl- α -(3-Ketoalkenyl)-Acetic
Esters

tendency to complex condensations and to the formation of side products. The use of aqueous ammonia solution with the addition of ammonium chloride (Ref 4) was successful in this cleavage, with the above mentioned esters being subjected to a sufficiently easy acid cleavage under the formation α -(3-ketoalkenyl)-alkane acids (See Reaction Scheme 1). The more accurate testing of this reaction by the decomposition of α -ethyl- α -(3-ketobutenyl)-acetic ester showed that the final result depends on the amount of the related ammonia solution, as it may be seen from the data given in table 1. The reaction is of general character. It is shown that the acid cleavage with the increase of the molecular weight of the α -alkyl- α -(3-ketoalkenyl)-acetic esters demands stricter conditions and at the same time offers smaller yields of α -(3-ketoalkenyl)-alkane acids. There are 1 table and 6 references, 2 of which are Soviet.

Card 2/3

Reaction of β -Chloro-Vinyl Ketone With β -Dicarbonyl SOV/79-28-10-23/60
Compounds. VII. Acid Cleavage of the α -Alkyl- α -(β -Ketoalkenyl)-Acetic
Esters

ASSOCIATION: Institut farmakologii i khimioterapii Akademii meditsinskikh
nauk SSSR (Institute of Pharmacology and Chemotherapy of
the Academy of Medical Sciences USSR)

SUBMITTED: September 30, 1957

Card 3/3

GOTTIKH, B. P.: Master Chem Sci (diss) -- "Ketovinylation of the esters of beta-keto acids and beta-diketones". Moscow, 1959. 8 pp (Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov), 100 copies (KL, No 10, 1959, 123)

5(3)

SOV/79-29-4-60/77

AUTHORS:

Kochetkov, N. K., Gottikh, B. P., Shtumpf, Rol'f

TITLE:

Reaction of β -Chlorovinyl Ketones With β -Dicarbonyl Compounds (Vzaimodeystviye β -khlorvinilketonov s β -dikarbonil'nyimi soyedineniyami). IX. Ketovinylation of the Esters of Cyclic β -Keto Acids (IX. Ketovinilirovaniye efirov tsiklicheskikh β -ketokislots)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1320-1323 (USSR)

ABSTRACT:

In connection with previous investigations carried out by the authors (Refs 1-5) the ketovinylation of the esters of cyclic keto acids is discussed in the article under review, and new prospects for their synthesis are given. Subject of the examination were the ethyl esters of cyclopentanone- and cyclohexanone carboxylic acids containing active hydrogen and therefore capable of being easily ketovinylated (Ref 6). The ketovinylation of the said β -keto esters was carried out by reaction of the sodium derivative of the β -keto ester suspended in benzene with β -chlorovinyl ketone, according to references 2 and 3. The reaction, which met with no difficulties whatever, neither in the case of alkyl β -chlorovinyl ketones, nor in the case of their aromatic analogues, resulted in normal ketovinylation products

Card 1/3

SOV/79-29-4-60/77

Reaction of β -Chlorovinyl Ketones With β -Dicarbonyl Compounds. IX. Ketovinylation of the Esters of Cyclic β -Keto Acids

with yields ranging from 60 to 70% (Scheme 1). After the usual treatment the 1-carbethoxy-1-(3'-ketoalken-1'-yl-1')-cycloalkanones-2 were removed by distillation (see the experimental part). In principle, this reaction does not differ from the ketovinylation of α -alkylacetacetic esters (Ref 3). In order to realize the ketovinylation of other β -dicarbonyl compounds of the alicyclic series, one of the representatives of cyclic β -diketones, viz. 1,1,4-trimethylcyclohexanedione-3,5 (methyl-dimedone) was ketovinylationed. After many, partly unsuccessful, experiments the conditions were found under which it is possible to prepare a ketovinylation product with an output of between 30 and 35% (Scheme 2). When hydrogenated this product absorbs 1 mol of hydrogen, which suggests only one double bond, and does not yield a 1,3,5-triacetyl benzene with diluted acids, which suggests a C derivative. These results confirm the theory of the structure of the product obtained and prove the fact that it is possible to apply ketovinylation to cyclic as well as alicyclic β -diketones. There are 6 Soviet references.

Card 2/3

SOV/79-29-4-60/77

Reaction of β -Chlorovinyl Ketones With β -Dicarbonyl Compounds. IX. Ketovinylation of the Esters of Cyclic β -Keto Acids

ASSOCIATION: Institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR (Institute of Pharmacology and Chemotherapy of the Academy of Medical Sciences, USSR)

SUBMITTED: March 6, 1958

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5(3)

AUTHORS:

Kochetkov, N. K., Gottikh, B. P.,
Vinokurov, V. G., Khomutov, R. M.

SOV/20-125-1-23/67

TITLE:

On the Structure of β -Chlorovinyl Ketones and on the
Stereochemistry of the Reaction of Ketovinilation
(O konfiguratsii β -khlorvinilketonov i stereokhimi reaktsii
ketovinilirovaniya)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 89-92
(USSR)

ABSTRACT:

The structure of the substances mentioned in the title $\text{RCOCH}=\text{CHCl}$ is, in spite of their well elaborated utilization methods (Ref 1), still an unsolved problem. From the most important methods of production (Refs 2-4) it may be assumed that the substances produced in this way have a trans-structure. The authors succeeded in clearly confirming experimentally this assumption. If one of the simple β -chlorovinyl ketones, methyl- β -chlorovinyl ketone is oxidized with sodium hypochlorite, the trans- β -chloro acrylic acid (Ref 5) forms under rigidly controllable conditions as the only product. If this oxidation does not contact the C-atoms with a multiple binding, moreover, if the mild conditions of reaction exclude

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the isomerization of the initial substance and the reaction product a complete transformation of the structure during the reaction is impossible. Due to this fact methyl- β -chlorovinyl ketone has to be regarded as a transisomer. Thus, also all alkyl-, alkenyl-, and aryl- β -chlorovinyl ketones (Refs 2-4) are transisomers under similar conditions. As far as the β -chlorovinyl ketones (Refs 6, 7) produced by other methods are identical with those obtained by condensation with acetylene, they are obviously also transisomers. By the knowledge of the above structure the stereochemistry of the reaction mentioned in the title (Ref 1) could be observed. It is one of the most important reactions of β -chlorovinyl ketones and is only a nucleophilic substitution of a halogen atom. Since the chemical methods cannot be used for determining the structure of the reaction products mentioned the authors used infra-red spectra. Although the authors mention only data on the ketovinylation of sulfinic acids and β -dicarbonyl compounds, they have little doubt that also in other cases (Ref 1) ketovinylation reaction leads to a formation of transisomers. In other words, the reaction takes place under

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preservation of the structure of the keto-vinyl group of the initial β -chlorovinyl ketone. This preservation may be explained by the substitution mechanism of the halogen (Ref 1, see Scheme) suggested by the author mentioned first. There are 3 figures and 16 Soviet references.

ASSOCIATION: Institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR (Institute of Pharmacology and Chemotherapy of the Academy of Medical Sciences, USSR)

PRESENTED: December 1, 1958, by A. N. Nesmeyanov, Academician

SUBMITTED: November 29, 1958

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5.3400

78288

SOV/79-30-3-42/69

AUTHORS:

Kochetkov, N. K., Gottikh, B. P.

TITLE:

Reaction of β -Chlorovinyl Ketones With β -Carbonyl Compounds. XI. Ketovinylation of Methylacetylacetone and 2-Methyldihydroresorcinol. Synthesis of Unsaturated δ -Diketones

PERIODICAL:

Zhurnal obshchey khimii, 1960, Vol 30, Nr 3, pp 948-953 (USSR)

ABSTRACT:

The reaction of the sodium derivative of methylacetone with β -chlorovinyl ketones in benzene, yields the following ketovinylation products: methyl-(3-ketobuten-1-yl)-acetylacetone (I), yield 59%, bp 100-101° (1 mm), n_D^{20} 1.4860; methyl-(3-ketopent-1-yl)-acetylacetone (II), yield 44%, bp 106-107.5° (1 mm), n_D^{20} 1.4822; methyl-(3-ketohexen-1-yl)-acetylacetone (III), yield 59%, bp 116-118° (1 mm),

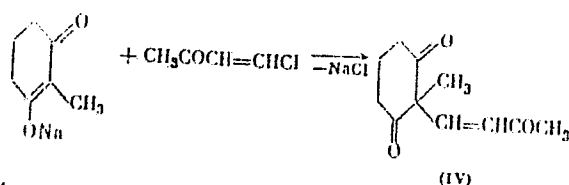
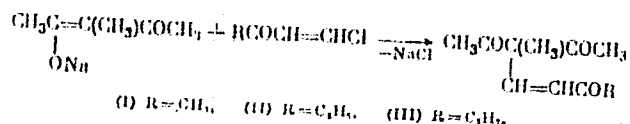
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n_D^{20} 1.4795. Ketovinylation of 2-methyl-dihydro-
 resorcinol in dioxane yields 2-methyl-2-(3-ketobut-1-yl)-
 -dihydroresorcinol (IV), yield 26%, mp 61-63.5,^o
 previously not known.



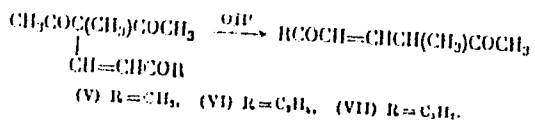
Methyl-(3-ketoalk-1-yl)-acetylacetonates yield un-
 saturated δ -diketones when subjected to alkali
 treatment.

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The following unsaturated δ -diketones were prepared: 3-methylhept-4-ene-2,6-dione (V), yield 76.5%, bp 74-75.5° (1 mm), n_D^{20} 1.4756; 3-methyloct-4-ene-2,6-dione (VI), yield 76.5% bp 82-83° (1 mm), n_D^{20} 1.4743; 3-methylnon-4-ene-2,6-dione (VII), yield 81.5%, bp 87-88.5° (1 mm), n_D^{20} 1.4725. The structure of the prepared δ -diketones was confirmed by analysis and by conversion of 3-methylhept-4-ene-2,6-dione into 1,4-dimethylcyclohexan-2-one. Hydrogenation of 3-methylhept-4-ene-2,6-dione over palladium on barium sulfate yield 3-methylhepta-

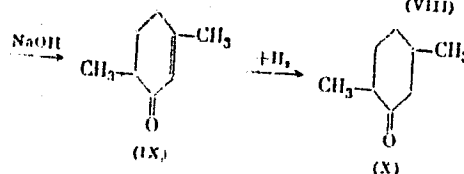
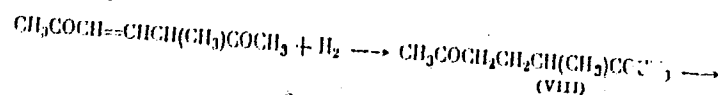
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-2,6-dione (VIII), yield 94%, bp 79-80.5° (5 mm),
 n_D^{20} 1.4353, which when treated with 10% solution of
 sodium hydroxide at 30°, yields 1,4-dimethylcyclohex-1-
 -ene-3-one (IX), yield 70%, bp 76-78° (8 mm),
 n_D^{20} 1.4967. The hydrogenation of the latter over
 palladium on bariumsulfate yields 1,4-dimethyl-
 cyclohexan-2-one (X), bp 176-177° (745 mm), n_D^{20}
 1.4460.



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There are 18 references, 11 Soviet, 1 U.S., 1 U.K.,

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 β -Carbonyl Compounds. XI.

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3 German, 2 French. The U.S. and U.K. references
are: Hauser, C., Adams, J., J. Am. Chem. Soc., 66,
345 (1944); Harding, V., Havorth, W., Perkin, W. H.,
J. Chem. Soc., 93, 1970 (1908).

ASSOCIATION:

Institute of Pharmacology and Chemotherapy of the
Academy of Medical Sciences of the USSR (Institut
farmakologii i khimioterapii Akademii meditsinskikh
nauk SSSR)

SUBMITTED:

March 24, 1959

Card 5/5

GOTTIKI, B. P., BRUSOV, YU. N., KARPEYSKIY, M. YA., KHOMUTOV, R. M.,
SEVERIN, YE. S. (USSR)

"Synthesis of Certain Biologically Active Hydroxylamine
Derivatives."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 August 1961

SLUTSKIY, O.I.; GOTTIKH, B.F.

Interaction between N-triphenylmethylglycine and transfer RNA.
Biokhimiia 30 no.5:1032-1036 S-O '65.

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, (MIRA 18:10)
Moskva.

GOTTIKH, R.P.

Nature of the radiometric anomalies over gas and oil pools. Sov.
geol. 8 no.3:23-34 '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geo-
fiziki i geokhimii.

GOTTLICH, W.

Country : Poland

8-28

~~Category~~ :

Abstr. Ser. :

47668

Author : Gottlich, W.; Pijanowski, E.

Abstract :

1957 : Losses of Thiamine and Riboflavin in the Process of Melting of Cheese

Orig. Pub. : Roczn. technol. i chem. zywn., 1957, 2, 35-45

Abstract : A study was made of the changes in the content of thiamine (I) and riboflavin (II) during the process of melting of 4 batches of Edam cheese (after 1-2.5 months) with addition of 3% of Na-citrate or disodium phosphate. During the process of melting of the cheese the content of I and II is decreased by ~20-40%, depending on the length of time during which the cheese is maintained at 70°. There is noted a decrease of the content of vitamins in connection with the lowering of active acidity of the cheese due to the weakly alkaline nature of the fusing salts. At the same pH value of the cheese melt the disodium phosphate induces

Card: 1/2

GOTTLIEB, A.

Breast cancer. Acta chir. iugosl. 1 no.4:313-323 1954.
(BREAST, neoplasms
diag. & surg.)

Gottlieb, A.
GOTT LIEB, A.

Is the term "acute abdomen" justified? Acta chir.iugosl 2 no.
1:76-77 1955.

(ABDOMEN, ACUTE.

plausibility of term (Ser))

GOTTLIEB, F., Conf.

Syndrome of dissociation of forces between the nucleus pulposus and the system of fibers of the fibrous ring, as a casual factor in intervertebral disk disorders. Med. int., Bucur. 9 no.1:80-89 Jan 57.

(INTERVERTEBRAL DISH, diseases
etiol., synd. of dissociation of forces between nucleus
pulposus & system of fibers of fibrous ring)

ROMANIA

GOTELIEB, P., Biologist and CIOACA, M., Eng [affiliation not given]

"A New Vegetable Hormone: Giberellins. Prospective Applications in Horticulture."

Bucharest, Natura, Seria Biologie, Vol 15, No 1, Jan-Feb 1963, pp 86-88.

Abstract: Reviews the results obtained by the Chemical-Pharmaceutical Research Institute of Bucharest with regard to the effectiveness of Romanian giberellins obtained from the following experimental varieties: Ps-lyonensis zonale (4 varieties); P. pellata and P. Gran-
gillorum; Hydrangea hortensis (European variety); Sal-
icobaria; Saint Paulia; and Cyclamen. The results given by earlier researchers and reported in the literature are confirmed.

Includes 3 figures and 4 Russian, 1 German and 2 Western references.

Romania

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Clinic for Infantile Surgery, Gr. Alexandrescu Hospital,
(Clinica de Chirurgie Infantilă, Spitalul Gr. Alexandrescu),
Bucharest.

Bucharest, Viata Medicala, No 1, Jan 63, pp 59-60.

"Plaster Cast for Facilitating the early Treatment of Congenitally Crooked Legs."

Gottlieb, F.

RUMANIA

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(Clinica de Chirurgie Infantila, Spitalul Gr. Alexandrescu),
Bucharest.

Bucharest, Viata Medicala, No 1, 1 Jan 63, pp 59-60.

"Plaster cast for facilitating the early treatment of congenitally
crooked legs."

GOTTLIEB, Ioan

A consequence of the relativistic treatment of a "uniform" field,
Studii fiz tehn Iasi 10 no.1:111-115 '59. . . (REAL 9:3)
(Unified field theories) (Relativity(Physics))
(Space, Generalized) (Gravitation)

GOTTLIEB, I.

On the displacement of the spectral lines of galaxies. Studi fiz
tehn Iasi 11 no.2:239-241 '60.

(Spectrum analysis) (Milky Way)

GOTTLEIB, I.

"Quantum mechanics" by A. Messiah. Reviewed by I. Gottlieb. Studi
fiz tehn Iasi 13 no.1:145-146 '62.